

HW85H_Perform Rotations

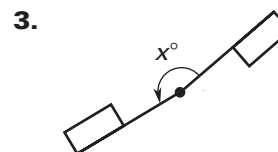
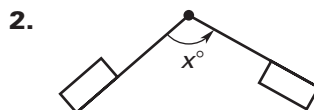
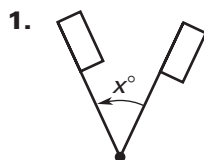
Failure to show all work and write in complete sentences will result in LaSalle!

LESSON
9.4**Practice B**

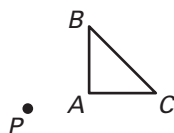
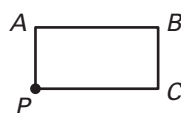
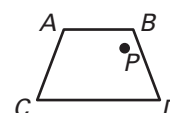
For use with pages 598–605

LESSON 9.4

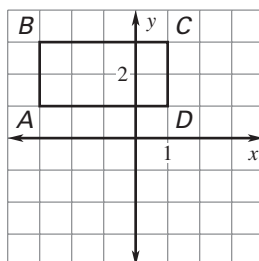
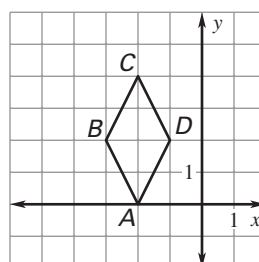
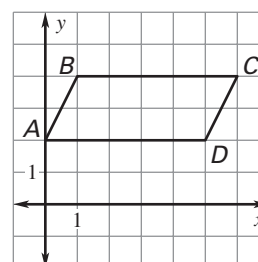
Match the diagram with the angle of rotation.

A. 110° B. 170° C. 50°

Trace the polygon and point P on paper. Then draw a rotation of the polygon the given number of degrees about P .

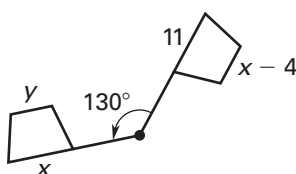
4. 45° 5. 120° 6. 135° 

Rotate the figure the given number of degrees about the origin. List the coordinates of the vertices of the image.

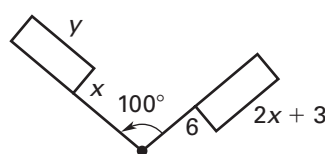
7. 90° 8. 180° 9. 270° 

Find the value of each variable in the rotation.

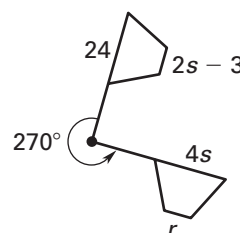
10.



11.



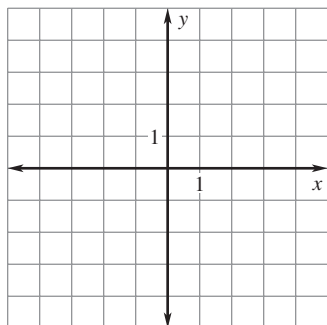
12.



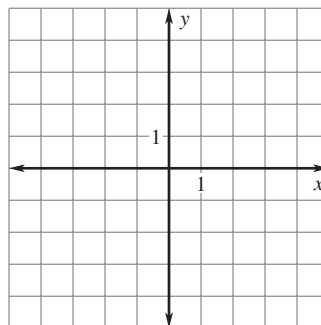
LESSON
9.4**Practice B** *continued*
For use with pages 598–605**LESSON 9.4**

Find the image matrix that represents the rotation of the polygon about the origin. Then graph the polygon and its image.

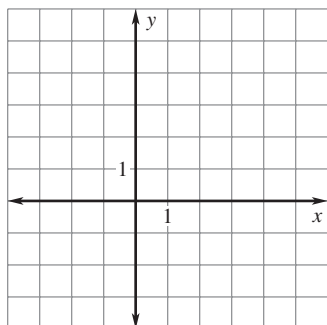
13.
$$\begin{matrix} A & B & C \\ \begin{bmatrix} 1 & 4 & 3 \\ 2 & 2 & 4 \end{bmatrix} \end{matrix}; 90^\circ$$



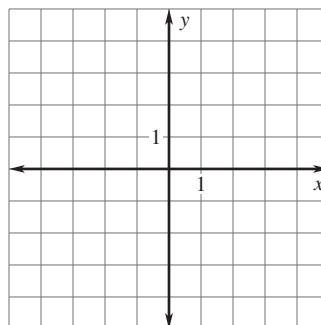
14.
$$\begin{matrix} A & B & C \\ \begin{bmatrix} 0 & 4 & 2 \\ -1 & 0 & 3 \end{bmatrix} \end{matrix}; 180^\circ$$



15.
$$\begin{matrix} A & B & C & D \\ \begin{bmatrix} 1 & 2 & 4 & 5 \\ -1 & 3 & 3 & -1 \end{bmatrix} \end{matrix}; 90^\circ$$

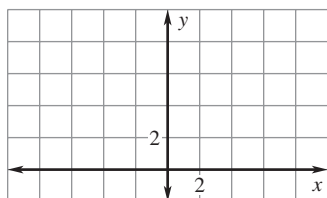


16.
$$\begin{matrix} A & B & C & D \\ \begin{bmatrix} -3 & -2 & 2 & 1 \\ -4 & -1 & -1 & -4 \end{bmatrix} \end{matrix}; 270^\circ$$



The endpoints of \overline{CD} are $C(2, 1)$ and $D(4, 5)$. Graph $\overline{C'D'}$ and $\overline{C''D''}$ after the given rotations.

- 17. Rotation:** 90° about the origin
Rotation: 270° about $(2, 0)$



- 18. Rotation:** 180° about the origin
Rotation: 90° about $(0, -3)$

